

IN THE CLAIMS

Please amend the claims as follows:

Claim 1. (Canceled)

Claim 2. (Previously Presented) The temperature-controlled shield ring according to claim 9, wherein the shield ring comprises:

a heat conducting element connected between the cap and a location where a substrate would rest during processing, the heat conducting element configured to transfer heat from the substrate to the cap.

Claim 3 (Original): The temperature-controlled shield ring according to claim 2, wherein the cap comprises a ceramic material.

Claim 4 (Original): The temperature-controlled shield ring according to claim 2, wherein the cap comprises anodized aluminum.

Claim 5 (Previously Presented): The temperature-controlled shield ring according to claim 9, wherein the coolant comprises a dielectric fluid.

Claim 6 (Previously Presented): The temperature-controlled shield ring according to claim 9, further comprising an insulator housed between the shield ring and the substrate holder.

Claim 7-8 (Canceled).

Claim 9 (Currently Amended): A temperature-controlled shield ring for shielding a substrate holder in a semiconductor processing system, the temperature-controlled shield ring comprising:

a cap having a coolant passage therein;

a plenum adaptor coupled to the cap and configured to connect to a coolant system for circulating coolant to the coolant passage, the plenum adaptor having a plenum adapter ring configured to be supported by a substrate holder, wherein the plenum adaptor does not include any fastening mechanism for maintaining a position of the shield ring on the temperature controlled substrate holder.

Claim 10 (Previously Presented): The temperature-controlled shield ring of claim 9, wherein the cap is coupled to the plenum adapter by at least one annular nut.

Claim 11 (Currently Amended): The temperature-controlled shield ring of claim 9, further comprising at least one seal interposed between the cap and the plenum adapter, said seal being configured to impede ~~and~~ an escape of said coolant from the coolant passage.

Claim 12 (Currently Amended): The temperature-controlled shield ring of claim 11 wherein said at least one seal comprises both a vacuum seal and a dielectric seal.

Claim 13 (Previously Presented): The temperature-controlled shield ring of claim 12, further comprising a leak check port positioned between said vacuum seal and said dielectric seal.

Claim 14 (Currently Amended): The temperature-controlled shield ring of claim 9, further comprising a heat conducting element comprising:

a first segment extending along and in contact with said cap, and

a second segment extending substantially perpendicular to the first segment, the second segment and-being configured to contact a focus ring surface and a substrate holder surface when the shield ring is coupled to a substrate holder assembly.

Claim 15 (Previously Presented): The temperature-controlled shield ring of claim 14, wherein said second segment includes a protrusion extending substantially perpendicular from the second segment so as to provide a discrete surface for contacting the substrate holder surface.

Claim 16 (Previously Presented): The temperature-controlled shield ring of claim 9, further comprising an insulating member adjacent to the first segment and configured to thermally insulate the shield ring from a substrate holder when the shield ring is coupled to a substrate holder.

Claim 17 (Currently Amended): A substrate holder assembly comprising:

a temperature-controlled substrate holder having a first surface configured to support a semiconductor substrate, and a second surface surrounding a perimeter of the first surface and configured to support a shield ring; and

a temperature-controlled shield ring coupled to said second surface and having at least one coolant passage provided within the temperature-controlled shield ring, wherein the temperature controlled shield ring rests on the second surface of the temperature controlled substrate holder without any fastening mechanism maintaining a position of the shield ring on the temperature controlled substrate holder.

Claim 18 (Currently Amended): The substrate holder assembly of claim 17, wherein the temperature-controlled shield ring comprises a cap having the at least one coolant passage therein, and a plasma plenum adapter coupled to the cap and configured to connect to a coolant system for circulating coolant to the coolant passage.

Claim 19 (Currently Amended): The substrate holder assembly of claim 18, further comprising a focus ring coupled to said substrate holder and interposed between a perimeter of said substrate holder and said shield ring; and

a heat conducting element comprising a first segment extending along and in contact with said cap and a second segment extending substantially perpendicular from the first segment and contacting said focus ring and said substrate holder, wherein the heat conducting element provides a heat conduction path from said substrate, through said focus ring, to the shield ring.

Claim 20 (New): The temperature controlled shield ring of Claim 9, wherein the shield ring has a vertical dimension such that a top surface of the shield ring is substantially coplanar with a substrate support surface of the substrate holder when the shield ring is supported by the substrate holder.

Claim 21 (New): The substrate holder assembly of Claim 17, wherein a top surface of the shield ring is substantially coplanar with said first surface of the substrate holder when the shield ring is supported by the substrate holder.